APPENDIX F: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

Table F-1
SAR System Validation Summary

SAR System	Freq. (MHz)	Date	Probe SN	DAE	Probe Cal Point		Cond. (σ)	Perm. (εr)	CW VALIDATION			MOD. VALIDATION		
									SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
AM14	13	07/27/2023	7360	534	13	Head	0.731	54.392	PASS	PASS	PASS	N/A	N/A	N/A
AM13	750	07/27/2023	7357	1582	750	Head	0.880	42.855	PASS	PASS	PASS	N/A	N/A	N/A
AM1	750	10/19/2023	3949	1684	750	Head	0.868	41.800	PASS	PASS	PASS	N/A	N/A	N/A
AM10	835	07/27/2023	7416	701	835	Head	0.939	40.793	PASS	PASS	PASS	GMSK	PASS	N/A
AM14	1750	08/28/2023	7360	534	1750	Head	1.363	40.219	PASS	PASS	PASS	N/A	N/A	N/A
AM4	1750	11/28/2023	7639	1403	1750	Head	1.385	38.871	PASS	PASS	PASS	N/A	N/A	N/A
AM15	1900	01/08/2024	7668	1681	1900	Head	1.406	38.655	PASS	PASS	PASS	GMSK	PASS	N/A
AM8	2300	03/31/2023	7421	604	2300	Head	1.717	40.684	PASS	PASS	PASS	N/A	N/A	N/A
AM8	2450	03/31/2023	7421	604	2450	Head	1.838	40.418	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM7	2450	05/25/2023	7532	501	2450	Head	1.866	39.839	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM12	2450	08/01/2023	7546	1402	2450	Head	1.845	38.972	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
AM7	2600	05/25/2023	7532	501	2600	Head	1.993	39.636	PASS	PASS	PASS	TDD	PASS	N/A
AM12	2600	08/01/2023	7546	1402	2600	Head	1.971	38.741	PASS	PASS	PASS	TDD	PASS	N/A
AM6	3500	05/24/2023	7638	1408	3500	Head	2.794	39.657	PASS	PASS	PASS	TDD	PASS	N/A
AM3	3500	10/04/2023	7782	1646	3500	Head	2.772	39.763	PASS	PASS	PASS	TDD	PASS	N/A
AM6	3700	05/25/2023	7638	1408	3700	Head	2.991	39.276	PASS	PASS	PASS	TDD	PASS	N/A
AM3	3700	10/04/2023	7782	1646	3700	Head	2.967	39.477	PASS	PASS	PASS	TDD	PASS	N/A
AM6	3900	05/25/2023	7638	1408	3900	Head	3.196	38.927	PASS	PASS	PASS	TDD	PASS	N/A
AM3	3900	10/04/2023	7782	1646	3900	Head	3.176	39.187	PASS	PASS	PASS	TDD	PASS	N/A
AM1	5250	10/23/2023	3949	1684	5250	Head	4.491	35.603	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5250	11/14/2023	3746	1237	5250	Head	4.523	36.656	PASS	PASS	PASS	OFDM	N/A	PASS
AM1	5600	10/23/2023	3949	1684	5600	Head	4.883	34.987	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5600	11/15/2023	3746	1237	5600	Head	4.925	36.045	PASS	PASS	PASS	OFDM	N/A	PASS
AM1	5750	10/23/2023	3949	1684	5750	Head	5.060	34.700	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5750	11/15/2023	3746	1237	5750	Head	5.104	35.790	PASS	PASS	PASS	OFDM	N/A	PASS
AM1	5800	10/23/2023	3949	1684	5850	Head	5.120	34.600	PASS	PASS	PASS	OFDM	N/A	PASS
AM9	5800	11/16/2023	3746	1237	5850	Head	5.270	35.689	PASS	PASS	PASS	OFDM	N/A	PASS
AM2	6500	11/16/2023	7420	1333	6500	Head	6.061	34.145	PASS	PASS	PASS	OFDM	N/A	PASS

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.